SN 10/767,037

Case 162-CIP-Div2-U.S.(RCE)

REMARKS

We appreciate the Examiner's obviously careful attention to the application, and in response:

We have cancelled claim 5 because, upon further consideration, we concur with the Examiner's position in that whether the induction heating coil is in contact with the shank portion of the die block or spaced from it is, to a fair extent, analogous to the Exparte Masham situation in the third paragraph of Sec. 2114 of the MPEP. However, with respect to claim 8 we believe the claim structure as now presented does not fall within the ambit of 2114 MPEP; i.e.: the lamps are structurally arranged in a common flat plane; that is to say, in a specifically described relationship of the parts to one another, and totally independent of any relationship to the substance or product treated by the apparatus which, we suggest, is the essence of the Masham principle. If the Examiner, upon further consideration is of the view that 2114 MPEP continues to be relevant we will further revise the claim or take other appropriate action.

We have also corrected the inconsistency in claim 3 to overcome the objection.

Claims 1 and 2 have been revised to describe a structural arrangement in which a differential in hardness is attained in a unitary workpiece having a portion A and a portion B, this hardness differential being accomplished by, among other features, (1) arranging the

structural components so that the heating elements (a) are confined to a portion only of the workpiece; i.e.: the shank portion and (b) are arranged in a single plane; i.e.: "common flat plane" in the text of the claims 1 and 2. By contrast those portions of the "heating coils 20" of Basinger which are used to do the work of the apparatus; i.e.: the curved segments at the far right end of Figure 2 (a) are not parallel to one another and (b) do not lie in a single common flat plane. Indeed, because of Basinger's illustrated relationship of his parts, the patentee is incapable of achieving applicant's result - differential heating beginning at one surface of a workpiece and progressing inward toward a remote area of the workpiece. In other words, Basinger neither discloses nor suggests a differential heating system and such a system cannot be constructed even after having knowledge of applicant's specification. Specifically, Basinger only teaches heating all the way through the thickness of a workpiece because his objective is to "braze(ing) stainless steel tubing joints" col. 2, lines 13, 14 and to braze two metal surfaces together at all locations in which they contact one another - i.e.: the metal extending from the inside dimension to the outside dimension must be heated to liquid or semi-liquid condition for the joinder of the two ends throughout their abutting circular area of contact. A temperature differential would yield an unbrazed area which would result in a rejectable weld. The curving of Basinger's elements 30 completely around the joint ensures all areas of the butted faces of the two tubes will be heated to brazing temperature, a result applicant avoids as is made clear by his specification of his heating

elements being both parallel to one another and lying in a common, flat plane.

Butler et al teaches heating through the entire thickness of the walls of pipe 14 so as to relieve the residual tensile stress which is present after welding, said stress being the cause of intergranular corrosion. To ensure this result the patentees contour their heating system to follow the physical contour of the workpiece so as to guarantee through heating. In addition Butler et al completely lack any control means for limiting the amount of heat energy which impinges on any or all surface area or areas of the workpiece.

Or to put it another way, would a worker in the art of eliminating the cracking between the shank portion and the body portion of a die block while preparing the die block for a production run receive any guidance from Butler et al after a read through of the patent? Clearly not. Butler et al only teaches: apply heat to the entire periphery of a body to relieve welding stresses. Applicant is not concerned with any problem stemming from a prior welding operation and to apply the through heating of a weld as taught by Butler et al would negate the high hardness in the working section; i.e.: the body portion, of the product applicant is concerned with. To apply Butler et al's teaching to applicant's problem would only destroy thousands of dollars worth of carefully built in hardness and ductility characteristics in the body portion of applicant's product.

Claims 1 - 5 patentability define over the combination of Basinger in view of Butler et al for the reasons discussed above. More specifically, Basinger clearly does not show all

aspects of the above claims except ceramic materials because Basinger's wires in no sense lie in a common flat plane (so as to provide the basis for differential heating when positioned opposite the flat surface of a workpiece) nor is any control means for the purpose of ensuring that a differential heat effort is created during the "current on" operation disclosed or hinted at. Making Basinger's shield out of the ceramic material disclosed in Butler et al does not cure the basic lack of relevance of Basinger as described above.

We respectfully state that the 103(a) rejection of claims 1 and 7-10 in their revised form cannot be sustained on the basis of Nishikawa in view of Butler et al. The difference between annealing stripes on moving spring copper alloy strips about 5mm wide having a thickness of .4mm, on the one hand, and stationary die blocks which, as those skilled in the art appreciate, can be 500 to 25,000 pounds and 3 feet thick in size is so great as to nearly defy comparison. Nishikawa moves his spring copper alloy .4mm thick strip past a processing station in which, firstly, a 1mm to 3.5mm wide stripe of graphite powder is deposited, and, then secondly, a high-luminance light source is directed against the graphite stripe, only, to heat the graphite stripe which in turn heats a portion of the underlying .4mm thick copper alloy strip on which the graphite has been deposited. Nishikawa does not disclose (1) a support structure for maintaining his workpiece stationary during processing, (2) a heat source composed of parallel runs of heating elements, (3) said parallel runs of heating elements being equidistantly spaced from one another in a common flat plane, (4)

said heat source impinging uninterruptedly directly on to the uncovered surface of the workpiece, nor (5) any means for controlling the depth to which the heat penetrates so as to yield a hardness differential from one surface to the opposite surface. Butler et al supplies none of the aforelisted features save, for sake of discussion, possibly 4), and thus no combination of features can be derived from the Nishikawa and Butler et al disclosures which can be fairly said to disclose applicant's claimed features, and there is clearly no recognition of the problem applicant was faced with nor any suggestion - even with the benefit of hindsight - within the four corners of the two references which would yield applicant's solution.

It is respectfully submitted that none of the references, whether considered separately or in any of the combinations the Examiner has proposed, make applicant's invention obvious within the meaning of 103(a) and accordingly an indication of allowable subject matter is requested.

We wish to acknowledge the brief telephone conversation with the Examiner on June 17th in which we inquired as to whether the Examiner had any preference for the handling of the application at this juncture. As a result we appreciate the Examiner's offer to contact the undersigned after reading the amendment with a view to resolving any matters which in his opinion require attention before rendering a further action which we believe he made note of. We are available by phone (preferably) or fax or email to respond to any questions or

concerns the Examiner may have, and we would welcome any such contact.

Respectfully submitted,

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